



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,802	12/21/2001	Toshiaki Fujii	TOK982018USP	5368

23413 7590 02/24/2010
CANTOR COLBURN, LLP
20 Church Street
22nd Floor
Hartford, CT 06103

EXAMINER

KEENAN, JAMES W

ART UNIT	PAPER NUMBER
----------	--------------

3652

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

02/24/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

Office Action Summary	Application No. 10/036,802	Applicant(s) FUJII ET AL.	
	Examiner James Keenan	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 11-15 and 24-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 11-15 and 24-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/11/08</u> . | 6) <input type="checkbox"/> Other: _____ |

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12/22/09 has been entered.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9, 11-15, and 24-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9, last line, it is not clear what is meant by "while the ... article is being transferred" (note line 9 recites that the article is "transported").

Claim 24, lines 6-7, the recitation of "the container" lacks antecedent basis; and line 20, it is not clear if the recitation of "an opening port" is the same or a different element as the "opening portion" recited in lines 10-12.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3652

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 24-28 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muka et al (US 5,613,821) in view of Briner et al (US 5,810,537) and Mastroianni (US 6,068,668), all previously cited.

Muka shows an apparatus for transporting a dust-free article, comprising a container 32 for receiving dust free articles therein and which is mountable on a loader 60 such that the entire container remains in a low cleanliness room while a cover 42 to be removed from the container faces a high cleanliness room 22, wherein the loader comprises an opening portion 78 disposed in the low cleanliness room in a border location between the high and low cleanliness rooms and a door 80 for opening and closing the opening portion, and further wherein the container comprises an opening port 38 through which the article is transferred to the high cleanliness room, the cover 42 is unified with the door 80 in the low cleanliness room and moves with the door to open and close the opening portion, and a fixing means 50-56 (fig. 5) fixes the cover to the port when the article is enclosed in the container.

The high cleanliness room is not disclosed as having a higher pressure than the low cleanliness room, nor is a gap around to door to allow air to flow from the high pressure, high cleanliness room.

Briner shows loader 10, stage 12 with movable lift ring 16, container 36 with cover 38, and door 26 in opening portion of wall 24 that separates a low cleanliness

Art Unit: 3652

room from a high cleanliness room, wherein the high cleanliness room has a higher pressure than the low cleanliness room.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified Muka such that the high cleanliness room had a higher pressure than the low cleanliness room, as suggested by Briner, as a means of preventing contamination.

Briner additionally shows the door to have “a slight air gap around its periphery” between it and the opening portion through which air flows out from the high cleanliness room (col. 5, lines 3-19). To have included this additional feature in the apparatus of Muka would have been obvious to further reduce contamination.

Muka also does not show a horizontally movable stage.

Mastroianni shows shuttle 28 for horizontally moving container 38 toward and away from a load port of a wafer processing apparatus. This is disclosed as a desirable alternative to systems without a movable stage.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified Muka by utilizing a driver to move the stage horizontally, as shown by Mastroianni, to enable easier and more precise loading of the container at the load port.

Re claim 25, see figure 9 of Muka.

Re claims 26 and 33, note front cover 70 of Muka.

Re claims 27 and 34, the feature is clearly taught by Mastroianni.

Re claim 28, although Muka does not explicitly teach an air cleaning device, the addition of such a feature is considered an obvious design expediency, in light of the fact that: a) Muka is used in a clean environment, and b) such devices are generally well known in this art, particularly since no structural details are recited.

The above rejection was previously applied to claims 24-28 and 32-34 in the Office action dated 10/12/06 and affirmed by the Board of Appeals in the decision rendered 10/28/09. As no amendments or substantive arguments with respect to these claims have been made, no further comments are deemed necessary.

6. Claims 9, 11-15, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muka et al in view of Briner et al and Mastroianni, as applied to claims 24-28 and 32-34 above, and further in view of Toshima et al (US 5,186,594).

While the mini-environment of Muka is properly considered a "low cleanliness room", as broadly recited, at least under certain circumstances (as thoroughly explained in previous Office actions and acknowledged by the Board of Appeals in their decision affirming the above rejection), it is unclear if the mini-environment is less clean than the high cleanliness room while the dust-free article is being transferred, and thus there is no explicit disclosure that the loader is located in the low cleanliness room while the article is being transferred, as now recited in claims 9 and 29.

Toshima, however, shows a door opener 24 (loader) for opening and closing a door 21 disposed in a border region between a load lock 8 (high cleanliness room) and an outside environment (low cleanliness room), wherein the loader is disposed in the

Art Unit: 3652

low cleanliness room while a cassette containing dust-free articles is transferred between the low and high cleanliness rooms.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the apparatus and method of Muka by locating the loader in the low cleanliness room while the dust-free articles were being transferred, as suggested by Toshima, to provide even further assurance that no particles generated by the loader could contaminate the high cleanliness room.

Re claim 14, although Muka does not show the container to include a protrusion with a hole in which a pin is inserted to unify the cover and door, a similar structure including recess 186 into which fingers 194 are inserted is shown in figures 13-15. it would have been obvious for one of ordinary skill in the art at the time of the invention to have additionally modified the apparatus of Muka by utilizing a protrusion with a hole in place of the recess, as this would simply be an alternate equivalent design expediency.

7. Applicant's arguments with respect to claims 9, 11-15, and 29-31 have been considered but are moot in view of the new ground(s) of rejection.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 6,074,154 to Ueda et al is equivalent to EP 827185 cited by applicant in the IDS filed 11/11/08, and is cited for its earlier filing date.

Art Unit: 3652

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. The examiner can normally be reached on Mon. - Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Keenan/
Primary Examiner
Art Unit 3652

jwk
2/17/10